

Vietnam Market for Telecommunications Equipment and Services

By U.S. Commercial Service – Vietnam March 2011

Overview

| Telecommunications | 2008 | 2009 | 2010 | 2011 |
|------------------------|-------|-------|-------|-------------|
| Equipment | | | | (estimated) |
| Total Market Size | 2,060 | 2,575 | 3,348 | 3,850 |
| Total Local Production | 735 | 920 | 1,196 | 1,375 |
| Total Exports | 30 | 38 | 49 | 56 |
| Total Imports | 1,350 | 1,688 | 2,194 | 2,523 |
| Imports from the U.S. | 170 | 212 | 276 | 317 |

| Telecommunications Services | 2008 | 2009 | 2010 | 2011 |
|-----------------------------|-------|-------|-------|-------------|
| | | | | (estimated) |
| Total Market Size | 3,200 | 4,000 | 5,200 | 5,980 |
| Total Local Production | 3,300 | 4,125 | 5,363 | 6,167 |
| Total Exports | 355 | 443 | 576 | 662 |
| Total Imports | 230 | 287 | 373 | 429 |
| Imports from the U.S. | 90 | 113 | 147 | 169 |

The above statistics are in \$ million and are unofficial industry estimates)

Vietnam's telecommunications sector is among the world's fastest growing telecommunications markets. The Government of Vietnam (GVN) has articulated its commitment to boosting the development of the Information and Communications Technology (ICT) industry, particularly in telecommunications and Internet infrastructure development, software production, Information Technology (IT) education promotion, and other forms of human capital development. On September 2010, Vietnam's Prime Minister Nguyen Tan Dzung approved the Project of "shifting Vietnam to the level of strong countries in the world's ICT industry."

It is estimated that Vietnam's posts and telecommunications sector's net revenue in 2010 reached approximately \$7.1 billion (or VND 138,800 billion), of which VNPT's revenues accounted for \$4.6 billion (or VND 90,000 billion.)

To meet tough competition and increasing market demand, Vietnamese telecommunications operators understand they need to enhance their competitiveness by adopting new technologies and by enhancing their human resource capabilities. They are seeking considerable transfer of technologies and know-how via foreign involvement in the telecommunications sector, although the market will open only at a gradual pace in line with Vietnam's WTO commitments.

In 1988, just after the "doi moi" (renovation/open door) policies carried out by the GVN, Vietnam had less than 200,000 phone subscribers with a teledensity of 0.18 lines/100 inhabitants. In 2000, Vietnam grew to approximately 2.6 million fixed-line subscribers and 640,000 mobile subscribers. In 2006, new phone subscribers in Vietnam more than doubled the total number of subscribers added in the 25-year period of 1975-2000, and the number of 18.5 million new telephone subscribers added in 2007 tripled that of the period of the previous 3 years. According to Vietnam's Ministry of Information and Communications (MIC), as of December

2010, Vietnam has approximately 162.9 million telephone subscribers (91.2% mobile and 8.8% fixed line), with a teledensity of 189 lines/100 inhabitants. Also, the number of Internet broadband subscribers reached 3.7 million with a teledensity of 4.2%.

The major technologies used in Vietnam include cable, satellite, and wireless cable. Major broadband networks are deployed via ADSL (asymmetric digital subscriber line), VDSL (very high rate digital subscriber line), and leased lines. WiFi is deployed in the major cities, and local ISPs are seriously contemplating WiMax (Worldwide Interoperability for Microwave Access) as a platform to popularize the Internet nationwide. In terms of network convergence, voice/data networks are available nation-wide, while "triple play" networks (voice/data/video) and broadband services have been growing in the big cities. VoIP (Voice over Internet Protocol) services are also expanding. Telecommunications companies own the Internet infrastructure and provide VoIP services. There are also several privately owned VoIP providers, all of which lease lines from major telecom carriers. So far, there are 10 local Internet service providers permitted to run WiMax pilot tests (VNPT, EVN Telecom, FPT Telecom, Vishipel, Viettel, VTC, G-Tel, Saigon Postel, VietsoPetro, and Đông Dương/Indochina Telecom), and one service provider licensed to resell services (VNTT).

As a new member of the WTO, Vietnam will continue to implement tax cuts as part of its commitments under the Information Technology Agreement. Specifically, categories currently in a 5 percent tax bracket decreased evenly to 0 percent in 2010; those in a 10 percent bracket will decline evenly to 0 percent in 2012 and those in a 20-30 percent bracket will go down evenly to 0 percent in 2014.

Vietnam's National Assembly passed the new Telecommunications Law and the Ratio Frequency Law that opens up new opportunities for trade and investment in the telecommunications sector. Notwithstanding, a major outstanding issue is a requirement for foreign companies to partner with SOEs for facilities-based services, which the Ministry of Information and Communications has indicated it will address via a regulatory circular prior to the implementation of the new law.

Excessively rapid growth, including price competition, problems with network connectivity and indifference to the fixed telephone market could cause some bumps in the road affecting the development of Vietnam's telecommunications industry.

Selection of a local partner is not only essential to maximize business development opportunities but also for the provision of certain services, as required pursuant to Vietnam's limitations to its WTO telecommunications market access commitments.

As the hi-tech industry continues to develop in Vietnam, prices will continue to go down, investment will increase and the business environment will become more competitive. By entering the market via equitization/privatization, foreign telecommunications companies will be able to approach this emerging market in a step-by-step fashion.

Best Prospects/Services

American suppliers should find excellent opportunities in almost every sub-sector, from equipment for telecommunications infrastructure to value-added services. Below is an analysis of the major best-prospect sub-sectors of the telecommunications sector in Vietnam.

<u>Fixed Telephone Networks</u>: As of December 2010, according to Vietnam's General Statistics Office, Vietnam has 170.1 million subscribers, of which fixed telephone and cell phone

subscribers make up 16.4 million and 154 million respectively. In 2010 alone, the country had 44.5 million new subscribers, of which of which fixed telephone and cell phone subscribers make up 793 thousand and 43.7 million respectively. Telephone access is currently available to all communities nationwide. State owned VNPT is the major landline telephone carrier in this market with market share of 71.0 percent in 2008. Ministry of Defense-owned Viettel is second with a 34 percent market share. As the traditional PSTN (public switched telephone network) fixed telephone service is no longer a "cash cow" subsector, Vietnam's telcos are instead developing wireless fixed telephone service solutions.

Mobile Phone Networks: At present, there are seven licensed cell phone network operators in Vietnam, not to mention the virtual and infrastructure-leased service providers. Nearly 90 percent of the mobile phone market share in Vietnam is currently divided between three major network operators: Viettel Mobile, MobiFone, and Vinaphone. According to figures reported by network operators to Vietnam's Ministry of Information and Communications (MIC), as of 2010, with a 90 million population, the total number of mobile phone subscribers in Vietnam was approximately 150 million, of which more than 90 percent were pre-paid subscribers. However, industry specialists estimate that there are only 50 million actual subscribers (i.e. being operational). According to MIC's statistics in 2008, Viettel leads the mobile sector with 38.1 percent market share, and VNPT-a telecommunications company that runs the two sister cell phone networks of Vinaphone and MobiFone accounted for a combined share of 51.9 percent. On October 27, 2010, a VNPT representative announced that Vietnam was ranked 7th in the list of top 10 countries in the world that have highest number of cell phone subscribers, even before Japan and Germany.

In terms of the technologies used in Vietnam's mobile phone networks, of the seven licensed mobile network operators, five run global systems for mobile communications (GSM) networks (VinaPhone, MobiFone, Viettel, Vietnamobile, and Beeline), and two run code division multiple access (CDMA) networks (S-Fone, and EVN Telecom). A few potentially new entrants, including Indochina Telecom and VTC Telecom, plan to run their services based on other operators' existing networks. GSM mobile networks presently account for more than 95 percent of the mobile phone market share. At the end of 2010, Vietnam's telecommunications sector witnessed FPT and its subsidiary FPT Telecom's acquisition of 49% of EVN Telecom. This acquisition pointed to the how difficult it is for CDMA technology survive in this market. It also signaled a mergers and acquisition trend amongst Vietnam's telcos.

Four licenses for 3G (third generation) wireless technology were issued by MIC in August 2009 to Viettel, Mobifone, Vinaphone, and an EVN Telecom/Hanoi Telecom joint venture. According to industry estimates, Vietnam will have approximately 4.5 million 3G subscribers by 2013. In terms of pre-4G technology, in September 2010, MIC approved a one-year pilot of 4G LTE (long term evolution) for five service providers namely: VNPT, Viettel, FPT Telecom, CMC và VTC. After the one-year pilot, licenses for this service will be issued through tender. VNPT/VDC began a joint venture with a Russian business partner to run the LTE pilot test in November 2010.

<u>Internet</u>: The Internet market has also developed rapidly in recent years. Internet usage has increased in popularity as evidenced by the entry of many Internet service providers (ISPs).

Statistics on Internet Development as of December 2010:

| Users | 26,784,035 | |
|---|--------------|--|
| Users per capita | 31.11% | |
| Total international connection bandwidth of | 129,877 Mbps | |
| Vietnam | | |

| Total domestic connection bandwidth | 245,857 Mbps |
|-------------------------------------|--------------|
| Total broad bandwidth subscribers | 3,643,742 |

Source: Vietnam Internet Network Information Centre (VNNCI) (http://www.vnnic.vn)

As of December 2010, the number of Internet subscribers in Vietnam stood at 26.8 million, with 31.1 percent of the population using the Internet regularly. Presently, the country's total international and domestic connection bandwidth are 129,877 Mbps and 245,857 Mbps respectively. However, Internet density is not equally spread throughout the country and is concentrated in the urban centers, especially Hanoi and HCMC. Broadband market demand has increased so rapidly that current market supply is not sufficient to meet demand. The broadband market is shared amongst three major ISP's: VNPT, FPT and Viettel. The chart below reflects the market share of broadband service providers in Vietnam as of December 2010.

Internet Broadband Market Share

| Service Providers | Market share (percent) | |
|-------------------|----------------------------|--|
| VNPT | 74.22 | |
| FPT Telecom | 11.19 | |
| Viettel | 9.4 | |
| SPT | 2.02 | |
| EVN Telecom | 1.28 | |

Source: Vietnam Internet Network Information Centre (VNNCI) (http://www.vnnic.vn)

<u>Satellites</u>: Vietnam's first communications satellite, Vinasat-1 (www.vinasat.com.vn) was launched on April 18, 2008. This \$200 million satellite was manufactured by the United States' Lockheed Martin and has a lifespan of 15 years. Vinasat is a geostationary satellite, employing 8 extended C-band channels and 12 Ku-band channels to provide broadcast and telecommunications service (video, data, voice) to countries in the Asia-Pacific region such as Vietnam, Laos, Cambodia, India, Australia, Japan, Korea, part of China, and other East Asia countries. It has the capacity to provide around 120 digital television channels and tens of thousands of Internet data transmission and telephone channels. Vinasat-1's principal ground station is in Northern Vietnam (Que Duong, Ha Tay), and back-up ground station in Southern

Vietnam (Binh Duong Province). The satellite has a transmission site in Hanoi and terrestrial networks in Hanoi, Ho Chi Minh City and Da Nang City. Vinasat-1 is connected with Intelsat, Thaicom and others.

At the time of the Vinasat-1 launch, it was forecasted that it will be necessary to launch the second satellite within 5-7 years. However, after only one year, the Vinasat-2 project was kicked off as Vinasat-1 had reached 70 percent capacity, and was expected to be at full capacity by 2010. On November 05/11/2010, VNPT and Lockheed Martin signed a contract to provide satellite, control station and launch services for the Vinasat-2 project. It is planned that the Vianasat-2 will be launched into orbit by Q2, 2012 at the 107oE position. The total investment for Vinasat-1 (with 20 emitters) was about \$200 million, while for Vinasat-2 (24 MHz emitters) it is estimated at \$280-300 million. It is expected that VNPT will recover the capital investment for Vinasat-2 in 10 years, while the capital recovery schedule for the Vinasat-1 has been shortened from 11 years to approximately 10 years. The Vinasat-2 satellite is planned to be launched into orbit on May 4, 2012, from Kourou Space Center in Guyana, a French territory in South America. By this point, Lockheed Martin has completed the design of Vinasat-2 and will put it into production in 2011. Arianespace, the French company that successfully launched Vinasat-1, has been selected to launch Vinasat-2 as well. Vinasat-2 applies state-of-the-art technology that takes advantages of the Vinasat-1 but will have a larger capacity of the 24 MHz Ku-band (36MHz bandwidth). With the design of Vinasat-2, Lockheed Martin committed that the satellite can be handle up to 25 transceivers during its 15-year lifespan. Vinasat-2 will be produced based on Lockheed Martin's A2100 platform frame and will transfer orbit after 24 months from the effective time of the contract. This satellite will cover the Southeast Asia and some neighboring countries.

Apart from telecommunications satellites, Vietnam also has plans for a natural resources, environment and disaster monitoring satellite (referred to as VNREADSat-1). VNREADSat-1 would be a small-sized earth observation satellite, 150 kilograms in weight with a five-year life expectancy. The satellite is scheduled to be operational in 2012 and will be used to help Vietnam map its natural resources and provide information about the environment and disasters. The project would cost an estimated \$60-100 million and free Vietnam from relying on satellite images provided by other countries. Any contractor that meets the requisite conditions for technology and capital will be allowed to participate in Vietnam's satellite projects.

Broadcasting: Vietnam's broadcasting industry has developed rapidly in recent years. At present, Vietnam has one national television station (VTV), one national radio station (VOV) and four inter-provincial broadcasting stations. Additionally, each of the country's 63 provinces and cities has its own local broadcasting station. Apart from these broadcasters, other new entrants include cable television, satellite (DTH/Direct-to-Home) and on-line television providers. In terms of network convergence, as noted above, voice/data networks are available nation-wide and "triple play" networks (voice/data/video) and broadband services have been developing in the large cities. Moreover, 40 percent of the country's broadcasting facilities have been digitalized. Market growth in 2009 was estimated to reach approximately 28 percent and is expected to reach 30 percent in the next 2-3 years. Market size in 2010 was estimated to be at \$400 million. Vietnam has developed and maintains a large national transmission network including parallel digital Ku-Band and C-Band satellite carriages and hundreds of relay stations in order to ensure coverage of Vietnamese territory.

Opportunities

American exporters will find tremendous opportunities in almost every sub-sector of the ICT, telecommunications and broadcasting industry.

Below are listed major buyers for equipment and services in this industry:

Telecommunications service providers:

VNPT (Vietnam Posts and Telecommunications Group)

Address: 57A Huỳnh Thúc Kháng, Láng Hạ, Đống Đa, Hanoi.

Tel: (84-4) 3577 5104; Fax: (84-4) 3934 5851

Web site: http://www.vnpt.com.vn

Viettel (Military Electronics Telecommunications Group) Address: 1 Giang Văn Minh, Kim Mã, Ba Đình, Hanoi.

Tel: (84-4) 6255 6789; Fax: (84-4) 6299 6789

Web site: http://www.viettel.com.vn

VDC (Vietnam Data Communications Company)

Address: Lot 2A, Thăng Long International Village, Cầu Giấy, Hanoi

Tel: (84-4) 3793 0599; Fax: (84-4) 3793 0506 Web site: http://www.vdc.com.vn: http://home.vnn.vn

VTC (Vietnam Multimedia and Communications Group)

Address: 65 Lac Trung, Hai Bà Trưng, Hanoi Tel: (84-4) 44512468; Fax: (84-4) 36367728

Web site: http://www.vtc.com.vn

EVN Telecom (Electricity of Vietnam's Telecommunications Company)

Address: 30A Pham Hồng Thái, Ba Đình, Hanoi Tel: (84-4) 2223 2323; Fax: (84-4) 2228 6868 Web site: http://www.evntelecom.com.vn

FPT Telecom Company

Address: 48 Van Bảo, Ngọc Khánh, Ba Đình, Hanoi Tel: (84-4) 7300 2222; Fax: (84-4) 7300 8889

Web site: http://www.fpt.net

Saigon Postel/SPT (Saigon Posts and Telecommunications Service Corporation)

Address: 199 Điện Biện Phủ, Bình Thanh, HCMC Tel: (84-8) 5404 0608; Fax: (84-8) 5404 0609

Web site: http://www.spt.vn

G-Tel (Global Telecommunications Corporation), and its subsidiary, G-Tel Mobile (G-Tel Mobile

Company)

Address: 19 Floor, Ladeco Building, 266 Đội Cấn, Ba Đình, Hanoi

Tel: (84-4) 3767 4846; Fax: (84-4) 3767 4854

Web site: http://www.beeline.vn

Vishipel (Vietnam Maritime Communications and Electronics Company)

Address: 2 Nguyễn Thượng Hiền, Hồng Bàng, Hải Phòng City

Tel: (84-31) 3746464; Fax: (84-31) 3747062

Web site: http://www.vishipel.com.vn

Global Data Service Joint Stock Company (GDS)

Address: Room 204 A, Thăng Long Building, 105 Láng Hạ, Đống Đa, Hanoi

Tel: +84-4-3562 6996; Fax: +84-4-3 5626998

Web site: www.gds.vn e-mail: gdsinfo@gds.vn

Đông Dương/Indochina Telecommunications Company

Address: C001 Building- The Manor Tower, Mỹ Đình, Từ Liêm, Hanoi.

Tel: (84 4) 3794 0481; Fax: (84 4) 3794 0480

Web site: http://www.itelecom.vn

Hanoi Telecom (Hanoi Telecommunications Company)

Address: 2 Chùa Bộc, Đống Đa, Hanoi

Tel: (84-4) 3572 9833; Fax: (84-4) 3572 9834

Web site: http://www.hinet.net.vn

CMC Telecom Service Joint Stock Company (CMC Telecom) Address: 15 Floor, CMC Tower, Lot 1CA, Cau Giáy, Hanoi

Tel (84-4) 3722 6688; Fax (84-4) 3722 6868

Web site: http://www.cmctelecom.vn

Internet Services Providers:

Below are Top 5 among 87 licensed ISPs:

- VNPT (Vietnam Posts and Telecommunications Group)
- FPT (FPT Group)
- Viettel (Military Electronics Telecommunications Corporation)
- SPT or Saigon Postel (Saigon Posts and Telecommunications Service Corporation)
- EVN Telecom (Electricity of Vietnam's Telecommunications Company)

Below are the major buyers for broadcasting equipment and services:

- VTV (Vietnam Television)
- VOV (Voice of Vietnam)
- VTC (Vietnam Multimedia and Communications Corporation or Vietnam Television Group)
- 63 local provincial broadcasting stations (See http://www.vtv.org.vn/home/vtv/daidiaphuong.html), and other local cable TV, satellite, and online broadcasters.

Source: MIC (www.mic.gov.vn)

Resources

Ministry of Information and Communications (MIC) http://www.mic.gov.vn

Ministry of Industry and Trade (MOIT) http://www.moit.gov.vn

Ministry of Science and Technology (MOST)

http://www.most.gov.vn

Ministry of Planning and Investment (MPI)

http://www.mpi.gov.vn

Vietnam Television

http://vtv.gov.vn

Voice of Vietnam Radio

http://tnvn.gov.vn/

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